

Distributed Interference Alignment in Practical Wireless Systems

Author(s) - Institution(s):

Geoffrey Colman, CRC

Corresponding author email: Geoff.Colman@crc.gc.ca

Corresponding WG group: WG2

Abstract:

In order for interference alignment (IA) techniques to be implemented in future generation mobile multiple-input multiple-output (MIMO) communications systems, they must be shown to be robust to system limitations such as imperfect channel estimation, quantisation and delay. Current IA algorithms in the literature assume global and instantaneous channel knowledge. In this paper, a novel IA algorithm is proposed which uses limited feedback and local channel information.